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ABSTRACT

Eighty-one fifth grade students from a suburban parochial school were randomly assigned to one of two treatment groups in a study designed to determine the effect of daily sustained silent reading (SSR) on student reading habits and attitudes toward reading. One teacher supervised 40 students in daily fifteen-minute periods of SSR, using classroom, library, and student materials. Two teachers instructed 41 students for equal periods of reading skills practice, using commercially prepared kits. In addition, students kept a record of their self-selected reading. After ten weeks, all the students took the Estes Reading Attitude Scale (Elementary Form) and reported the total numbers of books and pages read. Results of t-tests performed on these data indicated no significant differences in attitude and amount of independent reading between experimental and control groups, between boys across treatment groups, and between girls across treatment groups. Boys in the control group did complete significantly more books than boys in the experimental group, but this finding probably occurred because the most popular SSR reading materials seemed to be current magazine articles rather than books. (Author/RL)

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SUSTAINED SILENT READING PRACTICE: ITS EFFECTS UPON STUDENT READING HABITS AND ATTITUDES TOWARD READING

A THESIS

SUBMITTED TO THE FACULTY

OF THE GRADUATE SCHOOL OF EDUCATION

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OF

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CHAPTER I

INTRODUCTION

With much of the current emphasis on the instruction of basic reading skills, even the most effective educators are often dismayed with the results of their teaching. Clearly, their conscientious efforts are not tapping the full reading potential of students. It is evident that students who master reading skills will not necessarily become lifelong readers. McCracken's observations highlight this dilemma:

> "Is literacy enough? Or do we want to develop literate students who read willingly and use reading as a part of their lives? In this we have failed thus far. (McCracken, 1969, p. 446)

As in all learned skills, the development of good reading habits requires adequate practice. Teachers readily agree that such independent reading practice is beneficial for students; however, teachers quite often relegate this practice to library periods or the home setting (Mork, 1972). There appears to be a need to supplement the traditional basal approach which has already proven its inadequacies in producing avid readers.

An attempt to provide this independent reading practice is now reaching the classroom in a procedure known as

sustained silent reading (SSR). Introduced as an integral part of an individualized reading program by Hunt (1971), SSR involves students and teachers in daily periods of silent reading using independently chosen materials. When used as a supplementary reading experience, SSR supporters claim that teachers have the means to couple their efforts in skills instruction with a strategy that promotes the students' willingness to read.

Numerous reports have praised the ease of initiating the SSR program and its positive effects encouraging students' recreational reading (Oliver, 1970; McCracken, 1971; Spinrad, 1976). Unfortunately, these reports are not based on evidence gathered from controlled studies. On the surface, the practice of sustained silent reading appears to attain a high level of success in producing students who read; nevertheless, SSR may not be the most effective way to use valuable classroom instructional time. In an attempt to gather data on this problem, several existing studies have been unsuccessful in linking the practice of SSR to a significant level of improvement in students' reading achievement (Evans and Towner, 1975; Wilmot, 1975).

If SSR does not affect student achievement levels, perhaps the SSR supporters' claims that the daily practice produces avid readers and a love of reading can better justify its inclusion in the school curriculum. Wilmot

(1975) also measured student attitudes and found intermediate grade subjects participating in SSR had significantly better attitudes toward reading than control group students. However, her conclusion is contradicted by findings of other studies (Hanson, 1972; Reed, 1977). At best, the few studies directly investigating the SSR process can only suggest that this daily practice does not have detrimental effects on student reading habits and attitudes.

Statement of the Problem

In light of these numerous claims and the inconclusive evidence, several questions can be raised in order to more closely examine the practice of sustained silent reading:

1. Do children who participate in the daily practice of sustained silent reading display more positive attitudes toward reading than children who do not participate in this practice?

2. Do children who participate in the daily practice of sustained silent reading engage in more independent reading than children who do not participate in this practice?

Statement of Hypotheses

1. There will be a significant difference in the mean scores on the Estes Reading Attitude Scale: Elementary Form for children participating in a daily period of sustained silent reading and children involved in an equal period of

reading skills practice.

2. There will be a significant difference in the mean number of completed books recorded as independent reading for children participating in a daily period of sustained silent reading and children involved in an equal period of reading skills practice.

3. There will be a significant difference in the mean number of pages recorded as independent reading for children participating in a daily period of sustained silent reading and children involved in an equal period of reading skills practice.

4. There will be a significant difference between the experimental and control mean attitude scores of boys and between the experimental and control mean attitude scores for girls. Similarly, there will be a significant difference in the mean number of pages and books recorded as independent reading between these same groups.

Importance of the Study

Several considerations justify closer examination of the daily practice of sustained silent reading in the classroom. First, with the expansion and specialization of current school curriculums, daily instructional time is at a premium. Without positive evidence supporting SSR claims to produce avid readers and good reading habits, these daily fifteen to thirty minute periods might yield more measurable results if applied to other

areas of skills instruction.

In addition, the concerns of a wide range of educators are involved in the use of sustained silent reading practice. SSR's popularity is widespread and far from being limited to the elementary grades or the remedial reading setting. SSR often demands the cooperation of entire schools and staffs from the lowest primary levels to the secondary content courses.

The appeal of SSR is furthered by the facts that it can be easily initiated, with a minimum of funding, expensive equipment, and teacher retraining. It holds the promise of producing avid readers. Prior to implementation, however, it is the responsibility of educators to investigate this claim and validate its usefulness as an effective instructional strategy. Since most of the benefits of SSR are based on inferential reporting, further study is necessary. The entire area is lacking in conclusive statistical evidence.

Limitations of the Study

The findings of this study must be considered in terms of the following limitations:

Due to the demands of the school schedule, experimental subjects would not be exposed to longer sustained periods of silent reading. SSR periods could only be extended to fifteen minutes, as opposed to the thirty to fifty minutes suggested by proponents of this practice.

The treatment period was only ten weeks long. Possibly, this short time span could not significantly affect the gradual process of attitude formation.

The participating teachers' instructional approaches and personal attitudes toward their roles in the SSR or control activities could possibly influence their students. These factors could not be controlled within this type of investigation.

Definition of Terms

Sustained Silent Reading (SSR). The practice of involving students and teachers in daily periods of silent reading using self-selected materials. Formal evaluation and reporting is excluded from this process.

Reading Skills Practice. A supplementary daily period of independent work where students use a variety of commercially prepared kits stressing reading activities.

Independent Reading. For the purposes of this study, independent reading encompasses any freely chosen materials completed by the student. This excludes teacher-assigned or class-required reading. The terms "recreational reading" and "free reading" are alternate labels for this concept.

1. Completed books. All books or magazines freely chosen by the student and read in their entirity under the conditions stated above.

2. Completed pages. The amount of pages read from

books, magazines and newspapers freely chosen by the student under the conditions stated above.

CHAPTER II

REVIEW OF THE LITERATURE

When planning a reading curriculum, educators are in agreement with the major goal of promoting positive student attitudes. Yet, this goal may be lost in the current trends emphasizing skills instruction and diagnostic-prescriptive teaching. Alexander and Filler (1975) raise a pertinent question: "Do our current reading programs stress achievement at the expense of attitudes or do they stress achievement and attitudes? (p. 376)".

The literature reviewed in this chapter will examine the effects of sustained silent reading (SSR) and other free reading programs on student achievement and attitude. Pertinent information is grouped into four main areas: 1) the role of reading attitude and methods of assessment; 2) an overview of the SSR process; 3) statistical evidence obtained from SSR studies; and 4) statistical evidence obtained from studies examining similar recreational reading programs.

Assessing Students' Attitudes Toward Reading

The Importance of Attitude Assessment

Despite the considerable importance given to the relationship between positive attitude and reading achievement, there is a paucity of tools that assess student attitudes. Estes (1972) notes test publishers' disinterest in this area. He disagrees with popular opinions of authorities and practitioners who believe that attitudes are not measurable. It is possible that teacher training programs stressing approaches and skills may be one underlying reason why teachers take a more cognitive approach to reading (Ransbury, 1973).

Yet, student attitude toward reading does exist. Although it cannot be observed directly, inferences can be made from student behavior. The need to deal with this affective aspect of reading is essential, since the individual's attitude will remain long after instruction ceases. Estes (1975) feels that "by their nature, attitudes tend to act as determinants of subsequent behavior and training (p.4)". In this case, the desired behavior is the habit of life-long reading.

Methods of Assessment

Summers (1977) gives a thorough overview of methods for assessing reading attitude. Basically, assessment tools are normed for the elementary grades. They can be classified into three types: 1) self report; 2) direct observation; and 3) projective techniques. Self-report instruments are the most widely used and are usually

administered directly to an individual or group. Examples are based on semantic differential (Kemper, 1970), activity preferences (Bullen, 1970), and the Likert technique of scale construction (Estes, 1971).

Direct observation, a second type of instrument, is not as widely accepted due to problems with rater subjectivity and the need for numerous observation trials. Rowell's (1972) scale is one of the better examples that allows a rater to determine various degrees of reactions to a comprehensive range of reading situations.

Projective techniques are the most controversial of the measurement tools. Such instruments involve student judgement of situations that indirectly involve reading. Askov and Fischbach's (1973) scale for the primary grades employs picture pairs that force a child to choose between reading related and non-reading related activities.

Limitations of Assessment Instruments

Limitations of these assessment tools are often inherent in their usage and construction. Summers (1977) suggests that three criteria be considered when evaluating reading attitude scales. First, item choice should be based on adequate sampling procedures. Items should be carefully worded, and inadequate items should be removed. Second, users must be aware of the possibility of response set contamination. According to Estes (1975), this is especially prevalent in scales that are directly administered

to subjects. Pretesting can eliminate items that tend to call for a socially acceptable response. The combined use of positive and negative statements also lessens the problem. Finally, statistical validation should be evaluated. Scale construction procedures and norming information should be stated. Quite often, reliability and validity coefficients are omitted. In particular, content validity should be established, especially for scales employing projective techniques.

The teacher, as administrator of the assessment tool, influences student responses. Alexander and Filler (1976) caution teachers to reassure students that all responses will be used to improve instructional practices, select better materials, and plan classroom organizational patterns. Students should not feel threatened; nor should they view the attitude assessment as a testing situation. Otherwise, accuracy will be sacrificed, and students will tend to give "expected" responses.

There appears to be general agreement that the best approach to the assessment of reading attitudes is a combination of instruments administered over a period of time. Roettger (1977) found it essential to use personal interviews to validate and clarify test results. This is especially helpful in cases where discrepancies exist between attitude scores and achievement performance levels. Zirkel and Greene's (1976) review of attitude assessment tools

for the elementary grades concludes with the recommendation that teachers use a combination of a self-reporting instrument, an observer reporting instrument, and a book count. Summers (1977) also suggests a combination of assessment tools, adding activity preferences and projective tests as other possible assessment devices.

Overview of the Literature Describing Sustained Silent Reading

A teacher must deal with a wide range of student backgrounds and needs when planning reading instruction. Yet it is assumed that the teacher has the capabilities to assist all students in reaching their full potential in both the cognitive and affective aspects of reading. Since this is not an easy task, it is obvious that teachers would turn to a teaching "package" that promises higher levels of reading achievement and the formation of positive attitudes toward reading. Sustained Silent Reading (SSR) is a current teaching practice with such a reputation.

Description of the SSR Process

Lyman C. Hunt (1971) originated the idea of uninterrupted sustained silent reading (USSR) in his plan for an individualized school reading program. He labels this practice as "the pinnacle of reading skills" that promotes total student reading involvement. USSR sets the purpose for the reader to "... get as many of the important and significant ideas as he can through silent reading (p.30)".

In addition, the reader becomes proficient in evaluating his/her reading and selecting ideas that hold personal significance. Hunt calls the activity a "detective-type activity". USSR develops higher level reading skills in comparison to the word recognition and oral reading skills stressed in basal series.

McCracken (1971), another supporter of the sustained silent reading process, promoted the ease of implementing this program. He removed it from the context of Hunt's curriculum and demonstrated its complementary effects upon any school reading program. McCracken's six simple steps provide the framework for SSR: 1) each student is expected to read silently; 2) the teacher reads with the class, serving as a reading model; 3) each student selects a single book for the reading period; 4) sustained reading is timed, with reading periods increasing from five to fifty minutes or more; 5) no reports or records of reading are required, although informal discussion may follow the reading period; and 6) the program is conducted with entire classes or larger groups.

Unlike other reading programs that can only be evaluated after months or years in operation, McCracken feels that educators will note immediate results in student reading habits and silent reading performance. SSR can also be adapted to all grade levels. McCracken and McCracken (1972) outline a kindergarten program where

teachers give brief presentations of several books and then allow self-selection of books. Children are urged to look carefully at pictures and words during sustained reading time. In contrast, high school students display similar enthusiasm for SSR according to reports by Petre (1971) and Coughlin (1977).

Components of Successful SSR Programs

Despite McCracken's well defined approach to sustained silent reading, many schools find that his steps can be successfully adapted to meet special needs. SSR can become a school-wide program involving all students and school personnel. It can also be limited to a single classroom situation.

A wide variety of materials is essential, and the means of obtaining such items are many. Coughlin (1977) suggests that educators secure donations from publishing houses, encourage students to bring materials from home, and maximize use of materials through a teacher-sharing policy. Allington (1975) outlines such sources of materials as book clubs, magazines, newspapers and library resources. Petre (1971) reports on the formation of faculty-student committees at the secondary level that assume responsibility for materials, evaluation and promotional events.

The teacher's role is clearly defined in the SSR process. Hunt (1971) states that the teacher, as supervisor, must provide pupil support and assistance. Questioning

technique is critical in order for students to formulate significant ideas from their reading. According to Mork (1972), the teacher's familiarity with the class will help in setting ground rules and expecting realistic amounts of reading. He suggests that after SSR is well established, teachers can periodically interrupt their own reading and become involved in related activities with individual students.

Teachers provide the impetus for follow-up discussions by commenting on their own reading. Students can be encouraged to share brief summaries, share figurative language, develop higher level questioning techniques, and draw parallels to personal experiences. Yatvin (1977) relates SSR to such follow-up activities as play reading, group reading, and the use of filmstrips and tapes. While not directly referring to SSR, Washburn (1977) suggests other effective teacher roles. They include: suggesting books to meet student interests; identifying reasons and purposes for reading; seeking students' perceptions of their reading; and increasing the availability of reading materials.

Benefits Attributed to the SSR Process

Improved Reading through Practice. Reports of successful SSR programs (Petre, 1971; Ganz and Theofield, 1974; Spinrad, 1976) enumerate the many benefits that result. While endorsing the program, Huck (1976) reminds educators

that "...one of the best-kept secrets in education is that children learn to read by reading (p. 600)". Practice is the essential element in SSR. Allington (1975) views the SSR process as "...the missing link between skills exercises and fluency (p. 815)". Supporters argue that students are finally receiving essential practice on actual reading material, an activity often overlooked by teachers in the past. Mork (1972) feels that teachers are too often pressured by the many skills they must present as part of the prescribed curriculum. They relegate silent reading to the home or library setting with no assurance that the pupils actually read. In an editorial supporting SSR, McCracken (1969) advocates that teachers are responsible for promoting willingness to read rather than merely teaching reading skills. Gage (1971) even assumes a stronger stand when viewing the entire concept of free reading. He states:

> ...we have turned off students, sacrificing our long range goals of having students find reading satisfying, for a short term profit of increased scores on post-tests. (p. 2)

Gage suggests that overemphasis on diagnosis, prescription, and testing be put aside in favor of encouraging students to become involved in reading as an affective process.

A direct outcome of the daily reading practice is the claim that SSR increases students' levels of reading achievement. Hunt (1971) suggests that students will learn in spite of their frequent mistakes during silent reading. SSR gives the student first-hand experience

with higher level reading skills as s/he selects and evaluates important ideas. Informal observations in Petre's (1971) program note that student reading increased, students completed more assignments and performance on informal testing improved.

Behavior problems are minimized by SSR. Peer pressure or boredom from non-participation convinces many reluctant readers to read. SSR also claims to produce more independent and self-directed readers and workers.

The Teacher as Reading Model. The teacher's role as a model in the SSR process is another benefit attributed to the program. As the teacher reads adult-level material, s/he illustrates the process of silent reading for the children (McCracken and McCracken, 1978). Follow-up discussions concerning style or figurative language teach children about the thought processes involved in silent reading. Active involvement in SSR conveys the teacher's belief that reading is important; during SSR, teachers place their trust in the students' abilities to read, comprehend, and evaluate their material. Chambers (1966) and Duffy (1967) also note the importance of the teacher model in free reading activities.

Improvement in Reading Attitude. Supporters of SSR also believe that the program encourages positive student attitudes toward reading. Following six months of reading practice, McCracken (1971) polled students to determine

their attitudes toward SSR. Students responded that they appreciated a daily period of quiet in their day and felt they had learned to like reading. Even poor students experienced success and did not suffer embarassment from their errors. Choosing their own reading materials also pleased students.

A detailed report of attitude by Roettger (1977) combined an attitude test and interviewing techniques. An analysis of one test item pertaining to time for free reading during the school day provides insight, since some of the students were currently participating in an SSR program. A breakdown of responses to the test item indicated that 62 subjects agreed, 13 were uncertain and no one disagreed. SSR students expressed the desire for more reading time. Children stated that free reading remained an activity that only followed the completion of all other assignments. At home, opportunities to read were overshadowed by the demands of sports, scouting and other activities. These students' positive attitudes toward free reading appear to be in agreement with other reports that note students' enthusiasm for the SSR program.

The Development of the Lifelong Reader. Will this enthusiasm lead to lifelong reading habits? Alexander and Filler (1976) suggest that possibility when they advocate a period of free reading similar to SSR. Attitudes will improve, they attest, when students witness the value

placed on reading time and participate with other students who read. Other similarly constructed programs present related benefits. High Intensity Practice (HIP), a program using sustained silent reading in conjunction with sustained silent writing and self-selected language activities, boasts of students' acceptance and enjoyment of reading (Oliver, 1970). The HIP program claims to bolster the self-concept of the poor reader; it is self-paced, thus eliminating competition with other classmates. HIP parallels adult reading, since students set their own standards and purposes for their reading materials.

Duffy (1967) also refers to the pupil's self-concept. He views recreational reading as one excellent way to help the child see himself/herself as a "reader". Donelson (1969) reports that one outcome of a secondary level free reading program is increased student reading and enjoyment of reading materials. Pfau (1967) also feels that recreational reading programs fill a void in modern reading curriculums. He states that traditional reading programs "...fail to differentiate between those experiences which build reading skills and those experiences which build reading attitudes and habits (p. 35)". He adds:

> A teacher cannot teach children to be interested in reading, but s/he can offer a program of recreational reading that is so enticing children find it difficult not to want to read (p. 35).

Criticisms of the SSR Process

All members of the educational field do not agree with SSR's many alleged benefits. While Huck (1976) advocates the use of SSR, she notes "artificial aspects" created by the stipulation that all children must read at the same time. She questions if self-selection of reading time could accompany self-selection of reading materials. Spache (1978) recognizes SSR and its positive effects upon student attitude. However, he mentions that free choice of material does not necessarily assure that students are reading books that meets their needs and interests. Teacher guidance is necessary in order to avoid student choices based on immaturity or easy availability.

Gooch and Westermark's (1970) attack of McCracken's editorial promoting SSR is the most intense and extensive critique of this reading practice. Scepticism surrounds the fact that sustained silent reading performance cannot truly be measured. Improvement in students' reading behavior may suffer from face validity and should be subject to testing conditions. These educators view SSR as a method which attempts to teach reading "through osmosis", but only succeeds in producing "...quiet, non-committal permissiveness (p. 27)". As a result, students will suffer when skills instruction is put aside, and they are

no longer challenged to comprehend and master basic skills.

Pertinent Research Concerning Sustained Silent Reading

As reported earlier in this literature review, many authorities and practicioners have promoted the practice of sustained silent reading, emunerating its promising outcomes and benefits. However, few studies examine SSR under controlled conditions in order to obtain statistical evidence. In addition, the few available SSR studies do not attempt to determine if the process is superior to other reading practices. Instead, these studies are characterized by inferences that SSR is not detrimental to student gains in achievement and attitude.

The Effect of SSR on Students' Reading Achievement

Several studies examine the specific effects of SSR on student achievement level. An early attempt by Postel (1958) tried to determine the value of free reading by providing a group of fifth graders with a 30-40 minute period for reading self-selected materials. Students were required to read the entire book in sustained segments and give oral or written reports. After a five month period, student comprehension gains ranged between five and twelve months. Since a control group was omitted, findings are questionable. Postel admits that his study lacked the refinements of a true experimental design.

Williams (1967) examined the effects of supervised silent reading practice periods, similar in concept to SSR. Skills were deemphasized, and reading practice with teacher guidance was stressed. After thirty-eight reading periods, results showed no significant difference in reading achievement among students in basal approaches and those learning through various degrees of silent reading practice.

Coughlin (1977) warns that teachers should realize that improvements due to SSR are "qualitative". Teachers "...should refrain from looking for a correlation between increased SSR time and improvements on reading test scores (p. 353)". Yet studies are available that do examine this specific relationship between SSR and reading achievement. Oliver (1973) compared groups with one month of instruction in High Intensity Practice (HIP), of which SSR is an integral part, to a similar period of direct phonics skills instruction. Forty-eight children from grades four, five and six were pre-tested and post-tested with the Gates Reading Test, and comprehension scores were examined. Findings noted that differences in mean comprehension scores were not significant between the two groups. However, Oliver noted that mean gain scores were greater for the HIP practice group. Oliver's study, as a first attempt at examining the relationship between SSR and

reading achievement, may be limited by its brief treatment period and the questionable use of gain scores.

Evans and Towner (1975) reported on a ten-week program of SSR for forty-eight fourth grade students. Half of the children participated in daily SSR practice; the remainder received skills practice with supplementary, commercially prepared materials. Pre-test and post-test scores on the Metropolitan Achievement Test were obtained. Findings indicated no significant difference in achievement scores for the two groups.

Wilmot's (1975) extensive study of SSR at the second, fourth, and sixth grade levels was the first to present significant findings related to reading achievement. A six-month treatment program included a measure of reading performance based on the vocabulary and comprehension sections of the Gates Reading Test. The control group's performance on comprehension was significantly better at all grade levels; vocabulary scores were not significantly different between groups.

At the secondary level, Petre (1971) reports that no significant improvement in reading achievement scores was evident for students involved in daily SSR practice. However, this conclusion is based on informal observation, not as part of a controlled study.

Experimental procedures were employed in Reed's (1977)

secondary level study, however. Students in English classes, grades 9-12, were exposed to twenty weeks of either traditional classroom practices or traditional practices plus SSR. Her findings that report no significant difference in reading comprehension scores between groups are in agreement with Petre's (1971) observations. However, Reed emphasized that varying amounts of SSR practice will not retard reading achievement. This finding is important to school personnel who wish to implement instructional practices that do not require special equipment, materials, or extensive teacher retraining. Reed views SSR as a viable alternative for meeting the needs of secondary schools' remedial and reluctant readers.

The Effect of SSR on Students' Reading Attitudes

There are fewer studies which relate SSR and the formation of positive student attitudes toward reading. As in the studies reported above, few significant findings are available. The realm of attitude study also yields some conflicting evidence.

Hanson's (1972) study directly examined the process of SSR. He studied its effects on reading attitudes and independent reading habits of students in grades 2-4 from a low-income area. As part of a six-month training period, attitudes were assessed with the San Diego County Inventory of Reading Attitudes. Out-of-school reading habits were judged using a parent survey; independent reading habits

were measured through a book count technique, including experimental students' SSR reading.

The experimental group had daily 30 minute periods of SSR practice. The control group was involved in comparable periods of self-selected language activities. Findings indicated no significant difference in expressed attitude toward reading between groups. Both groups made comparable positive gains in reading attitude. Similarly, both groups made positive gains in the amount and variety of out-of-school reading, with no significant difference noted between groups. The only significant finding indicated that SSR students at two of the three grade levels made greater gains in independent reading.

In contrast, Wilmot's (1975) study, mentioned earlier in this review, revealed that SSR students in grades four and six had significantly better attitudes toward reading than control group students in those grades. Groups of second grade students displayed no significant difference in attitude. Results were obtained from a reading attitude inventory designed expressly for this study.

Harvey (1974) also studied the effects of SSR practice in the elementary (grades 1-6) classroom. An extensive population of 79 teachers and 700 children from three school districts participated in this study. Schools rather than individual children were randomly selected for the SSR and control groups. Pre- and post-test attitude

scores indicated that daily periods of SSR over a two-month period did not significantly affect students' attitudes toward reading. A shorter treatment period could be responsible for these results. In addition, assessment of student attitudes appears secondary to the purpose of this study. Harvey's examination concentrated on teachers' responses to SSR in-service training and their resulting opinions toward reading.

At the secondary level, Reed's (1977) study also examined student attitude toward reading. Although results are not significant between experimental and control groups, she notes that the requirement to read for sustained periods of time will not foster negative attitudes toward reading.

Pertinent Research Concerning Similar Recreational Reading Programs

It is obvious from the few studies noted above that insufficient statistical evidence exists to provide a thorough evaluation of the sustained silent reading process. For this reason, related studies in the area of free or recreational reading are included in this literature review. Findings reported in this section will be limited to those related to the purposes of the present study. As in the SSR studies, conflicting evidence also prevails in the area of recreational reading.

Recreational Reading and Students' Reading Achievement

Several authors present positive findings when relating free reading and reading achievement. Lawson's (1964) study compared sixth graders in four types of instructional programs with varying degrees of free reading. Results indicated that gains in word knowledge were significantly greater for the students who spent more time in free reading activities. Gains in comprehension were significantly better in programs with systematic instruction. Lawson's conclusions suggest that a reading program combining systematic instruction and a period of free reading will result in the highest achievement gains.

Pfau's (1966) two year investigation of a planned recreational reading program combined a basal program with 30 minutes of silent reading and student response to material read. Obviously similar to SSR, this program for first graders resulted in significantly greater scores for word recognition and vocabulary in context in the experimental group. In addition, children in this same group produced significantly greater written responses based on mean sentence length.

Sauls (1974) employed a free-reading book count in his study with sixth grade subjects. He reported a significant correlation between comprehension scores and number of completed books. However, an opposing conclusion appears to be found in Lamme's (1976) extensive

longitudinal study dealing with reading habits and abilities. After testing multiple variables at the intermediate level she feels that her findings refute the belief that children's reading habits are related to the ability to read.

Significant findings were not apparent in all experimental reports. For example, Healy (1963) compared intermediate grade children who were part of either free choice reading groups with self-selected materials or rigidly grouped classes with less self-selection. No significant difference was found in reading achievement between groups, although significant gain scores resulted. Results are questionable since they are based on different intact classes over a three-year period.

Bissett (1970) also reported insignificant differences between mean scores for vocabulary and comprehension in a recreational reading experiment with fifth graders. Besides employing a control group and a group having access to free-reading books, this study was unique in providing a second experimental group that participated in a book recommendation program, similar to follow-up procedures in SSR.

Finally, Pfau's (1966) study mentioned above also measured other achievement variables. However, differences in spelling and mean sentence length of oral sentences were not significant between groups.

Recreational Reading and Students' Reading Attitudes

Research evidence presents many positive significant findings when viewing free reading and the affective domain. Of course, the limitations of attitude assessment tools must be considered when interpreting these findings. Two studies employed attitude scales in relation to free reading. (Healy, 1963; Bullen, 1970) In the first study, attitude was measured by a questionnaire and observation of the amount of time it took a subject to begin reading after a play period. Results indicated that 28 students in the free choice groups showed improvement in reading attitude, compared to 18 students in the rigidly grouped situation. It must be noted that Healy does not indicate in this particular report if these results are significant. Also, no measure of reliability or validity is provided for her assessment tools.

Bullen developed her own reading scale to determine if positive attitudes could be fostered by providing children with more books and motivational reading periods. Subjects in this study had limited experience with books due to cultural and economic factors. Her conclusion suggests that the motivational program positively affected the reading attitudes of experimental group subjects, with a noted carry-over in free reading behavior to the home environment.

Pfau (1966) measured reading interest in terms of

behaviors that reflect positive reading attitudes. In the study mentioned above, levels of interest differed significantly at the .001 level, favoring the experimental free reading group. These children made more trips to the library and withdrew more books. They made more frequent mention of reading in a free response interview and selected more reading-oriented items in an interest inventory.

In correlational studies, Kemper (1970) found that seventh grade students with positive reading attitudes gave high ranking to the items "library", "newspaper" and "someone who reads also" on a semantic differential attitude scale. Hansen's (1973) study of the home literary environment's effects on reading attitude correlated several important factors that relate positive attitudes and free reading: amount of reading done or encouraged outside of school (.79); regular reading time set aside and encouraged (.79); amount of parent-child discussion about the child's reading (.72).

Measuring the amount of student reading is another means of relating free reading and reading attitudes. Bowen (1964) studied 590 children in three controlled conditions with varied amounts of emphasis placed on literature. Groups where teachers actively initiated interest in literature read a significantly greater number of books, covering a wider range of higher quality material. Control

groups scored the lowest in all measurements.

In Bissett's (1970) study mentioned above, the mean number of books reported was significantly greater for children participating in the free reading/recommendation program. Again, control groups without access to free reading books obtained lowest scores. Sauls (1974) also found a significant correlation between pupil scores on attitude scales and their amount of free reading.

Effects of Recreational Reading Related to Sex Differences

There are few studies that deal directly with sex differences in relation to reading attitudes. However, several of the studies mentioned earlier in this review provide some information. Pfau (1966) could produce no evidence that his experimental recreational reading program differed in its influence on males and females. In contrast, Hansen's (1969) home literary study found that girls had significantly better attitudes toward reading and read a significantly greater number of books.

Kemper's (1970) use of a semantic differential scale indicated that seventh grade girls had significantly better reading attitudes than boys of the same age. At the primary level, Askov and Fischbach (1973) made similar conclusions. They related these differences to the contrasts in childhood experiences for boys and girls.

In studies stressing book counts, Sauls (1974) indicated that females had significantly better attitudes

toward recreational reading. Girls also read a greater number of books. This refutes Bissett's (1970) earlier findings in his free reading/recommendation program, where the number of books reported did not significantly differ between boys and girls.

Summary

After reviewing this literature, it is evident that the development of positive attitudes toward reading is a recognized concern of today's educators. Sustained silent reading is a program that is being adopted in an increasing number of classrooms throughout the country. Although many benefits are attributed to SSR, its claim to foster positive reading attitudes is pertinent to this study. Statistical evidence provided by Wilmot (1975) supports this claim at the intermediate grade level. However, conflicting evidence is found in similar SSR studies by Hanson (1972) and Reed (1977). Studies of other free reading programs present a more positive picture when determining the effects upon reading attitudes.

In light of this evidence, this study will attempt to add statistical data supporting a relationship between sustained silent reading and positive reading attitude. Upon the recommendations found in existing literature, it will employ a combination of instruments for the purpose of assessing student attitude. The study will also attempt

to measure the effects of SSR upon students' independent reading habits. Conclusions based on this study will assist in determining if sustained silent reading is a beneficial supplement to the school reading curriculum.

CHAPTER III

PROCEDURE

This study was designed to involve experimental group subjects in the treatment of a daily fifteen minute period of sustained silent reading. Students in the control group received an equal daily period of reading skills practice. Throughout a period of ten school weeks, from December 4, 1978 to February 23, 1979, students kept records of all self-selected reading on a daily basis. At the end of the ten weeks of treatment, both groups were post-tested to measure attitude toward reading. The study is based on the following experimental post-test design (Stanley and Campbell, 1963):

R	X_1	O_1	O_2
R	X_2	O_1	O_2

Each student was post-tested with the reading attitude scale from the Estes Attitude Scales: Elementary Form. In addition, totals of the students' independent reading over the ten week period were calculated. These group totals were examined in relation to the number of books completed and the number of pages read. Further description

of the sample, assessment instruments, treatment methods, and analysis of data will be included in this chapter.

Description of Sample

The entire fifth grade population of a suburban parochial school in Middlesex County participated in this study. Members of the total school population reside in many neighboring communities; fifth grade students represented residents of three different towns. According to the school's diocesan reports and census data submitted to the National Catholic Education Association, most students came from lower middle-class families. A breakdown of parent occupations indicates that an estimated majority of 75% held blue-collar positions.

The school's three fifth grade classes provided a total population of 81 students. Each student was initially given a number and then assigned to the experimental or control group by means of the table of random numbers. One teacher was assigned to the 40 students participating in SSR practice; the remaining 41 students participating in reading skills practice were equally divided among two teachers (Table 1). Students met in these groups during the last fifteen minutes of their daily sixty minute period of reading instruction. A timer was used to assure a full fifteen minutes of student involvement in the daily treatment period.

TABLE I

SAMPLE SIZE ACCORDING TO GROUP AND SEX

Group	Boys	Girls	Total
Sustained Silent Reading Group	20	20	40
Reading Skills Practice Group	20	21	41
Total	40	41	81

Selection and Administration of Tests

Since this study attempted to assess an accurate measure of student attitude toward reading, selection of instruments for evaluation was based on several suggestions that multiple assessment instruments be used (Greene and Zirkel, 1976; Summers, 1977). Therefore, this study employed a self-report instrument and a book count based on students' personal reading records. A third type of instrument, a formal observer report, was inappropriate due to the time limitations and treatment procedures of this study. An observer report, such as the one developed by Rowell (1972), requires frequent observations in varied reading situations over a period of several months. These conditions were not available to the teachers participating in this study.

Assessment Instruments

Estes Attitude Scales. The reading attitude scale from the Estes Attitude Scales: Elementary Form (Grades 2-6) (Estes, Roettger, Johnstone, Richards, 1976) was administered as a post-test to all subjects participating in this study (Appendix A). The reading attitude scale is one of three scales measuring attitude toward school subjects. It is composed of fourteen statements, with a mixture of positively and negatively worded items. The students' reading ability is not a factor in their

performance, since each item is read aloud with each response marked on the student's individual answer sheet. Subjects are presented with three possible responses on this adapted Likert-type scale. Scoring procedures allot two points for responses that reflect positive reading attitudes, one point for responses reflecting uncertainty, and no credit for responses reflecting negative reading attitude. The scale yields a summated rating.

This attitude scale was adapted from and designed to parallel Estes' version developed for older students. When reviewing the original form, Summers (1977) reports that it "is, technically and conceptually, the best developed reading attitude scale to date" (p. 152). Estes provides norms, reliability and validity information for the elementary form. A satisfactory degree of internal consistancy is reflected in the .85 coefficient of reliability for the norm group. Evidence of discriminant and criterion-related validities has not yet been completed. However, the authors' preliminary findings indicate significant correlations between attitude scores and students' self-ratings of reading performance, their amount of reading, and their teachers' ratings of student reading attitude (Estes, et.al., 1976). These findings parallel the high correlations found on the version of the Estes' scale for older students.

The Reading Record. A book count based on a record of students' independent reading is the second type of attitude assessment employed in this study (Appendix B). The record was designed to overcome some of the limitations inherent in previous attempts reported by Hansen (1969), Bullen (1970), and Zirkel and Greene (1976).

1. The count was not limited to books. The record provided space for a description of the material. Reading could include books, exerpts from magazines, newspapers, or comics.

2. To allow for variations in book size and format, space was provided to record the number of pages read. Children reading longer books or higher level material would not be penalized when calculating the total number of completed books. Their reading would be accounted for in the determination of the total number of pages read.

3. Space on the reading record was provided to indicate if books were completed. If a child rejected a book after reading a small segment, s/he would still receive credit for the number of pages completed.

4. Students were informed that the free-choice reading record excluded teacher-assigned and class-required reading. Space on the reading record was provided to indicate if the reading was limited to the reading class, including the fifteen minute treatment period. Such reading entries were considered class-required and eliminated

from the count by the investigator. This was an attempt to adjust the count in view of the unfair advantage in required reading time for the SSR experimental group.

Administration of Assessment Instruments

Pilot Testing. Prior to the initiation of the daily treatment session, twenty sixth grade students who would not later be participating in the study were administered a form of the Estes Attitude Scale. Ten randomly selected students received the original form of the scale (Estes, 1971). The remaining ten students received the reading scale from the Estes Attitude Scales: Elementary Form (1976). The main purpose of the pilot testing was the examination of resulting scores in order to determine if a ceiling effect would be present. This major limitation was noted on the original form of the scale (Greene and Zirkel, 1976).

After administering both forms of the scale, the more recent form of the scale was selected for use in this study for several reasons. First, the wording of the items and the format for responses appeared to be better matched to the subjects' level of understanding. Also, reliability and validity coefficients for the more recent scale were based on a larger number of subjects of the appropriate age group.

In addition, the range of obtained pilot test scores

(0-28) appeared to indicate the scale's ability to discriminate between degrees of student attitude toward reading. A mean score of 18.6 with a standard deviation of 8.17 suggests that a ceiling effect would not be present when the scale would be administered to the fifth grade population as a post-test following treatment. A summary of these pilot test results is included in Appendix C.

Post-Test of Reading Attitude. At the conclusion of the ten week treatment period, all subjects were administered the reading scale from the Estes Attitude Scales: Elementary Form. All testing was completed during the week following the conclusion of the treatment period. The test was administered in the students' homerooms by this investigator.

The Reading Record. On the day the treatment period was initiated, students were instructed in the methods of determining and listing independent reading. They were required to complete their reading charts on a daily basis during the last fifteen minutes of the school day. Charts were collected at four intervals during the treatment period. Data concerning the number of books completed and the number of pages read were based on the compilation of each group's records over the entire ten week period.

Experimental Methodology

Teacher Orientation

After the procedures for the study were reviewed and approved by the school's principal, a teacher orientation session was planned. This in-service program was conducted two weeks prior to the implementation of the treatment period.

All three teachers were present for the in-service program where the investigator presented a brief overview of the experimental and control conditions described below. An attempt was made by the investigator to emphasize the positive educational implications of both treatment conditions. Teachers were familiarized with the problems and purposes of the study. Details concerning the construction of random groups, the daily reading time period, and use of the reading record were clarified. Teachers were urged to encourage students' acceptance of the treatment programs and reading record by presenting them as a project that was part of their regular reading instruction.

All teachers were thoroughly familiarized with the necessary materials and responsibilities entailed in both the SSR group and reading skills practice group. The one teacher conducting the SSR group also surveyed the article by McCracken (1971) which outlines the implementation of an SSR program. Teachers were encouraged to notify the investigator if any problems were encountered. The

investigator visited the school every two weeks in order to collect completed reading records and discuss the progress of the program.

Sustained Silent Reading

Under the experimental conditions, the students and their teacher read self-selected materials for the alloted daily time period. Sustained time was increased from five minutes in initial sessions to a maximum of fifteen minutes. The teacher used a timer for the sustained period and informed the children of their total sustained reading time. Following silent reading, the teacher commented on some aspect of her own reading and encouraged students to share some of the highlights of their books. Participation in discussion was not required of each student; discussions were kept informal, following guidelines suggested by McCracken and McCracken (1972).

Students were required to select reading materials prior to the SSR period. Materials were student-owned or chosen from classroom collections or the school library. Limitations were not placed on the types of material selected by students. Books, magazines, comics and newspapers were acceptable materials for the SSR period.

Reading Skills Practice

Children in the control group worked for a fifteen minute period in commercially prepared materials that emphasized reading skills. Students independently selected

their reading materials, kept records of their work, and submitted completed tasks to teachers for correction.

Since two teachers were conducting the skills practice group, materials were shared between them. Every student in the control group had the opportunity to select assignments from all of the available materials.

The teachers working with the control group provided students with individual assistance and encouragement. They supervised the use of the materials, assuring a variety of tasks and the availability of progress charts and answer sheets.

Treatment of Data

Attitude scales were hand scored, producing individual summated ratings.

Reading records were initially examined in order to eliminate all books and pages read entirely in the student's reading class. Then, the remaining amount of completed books recorded on the sheets was totaled by use of a calculator. Finally, the remaining number of completed pages recorded on the sheets was totaled by use of a calculator.

A *t* test was performed on the post-test mean attitude scores for the experimental group and the control group. Results of the test would determine if the experimental group students displayed significantly better attitudes

toward reading than control group students following the ten week treatment period of sustained silent reading.

t tests were also performed on the mean number of pages and the mean number of completed books logged on the reading records for the experimental group and the control group. *t* test scores would determine if the experimental group students continued their free reading outside the SSR period and completed a significantly greater amount of independent reading than control group students.

Further analysis was made between boys in the experimental and control groups and between girls in the experimental and control groups. *t* tests were performed to determine if there were any differences in reading attitude between groups due to the sex of the subjects. Results of *t* tests also noted any differences in the amounts of independent reading between groups due to the sex of the subjects.

CHAPTER IV

FINDINGS AND DISCUSSION

This chapter presents an examination of data obtained from mean scores on the Estes Reading Attitude Scale. This test was administered to both treatment groups at the completion of a ten week program involving a daily period of sustained silent reading for the experimental group and a daily period of reading skills practice for the control group. In addition, data were obtained from the mean numbers of completed books and pages reported as independent reading on the students' reading records over the same ten week period.

The first hypothesis tested in this study dealt with all the experimental students' attitudes toward reading versus all the control students' attitudes toward reading. The second and third hypotheses observed a comparison of the amounts of completed books and pages recorded as independent reading between both treatment groups. The fourth hypothesis examined a comparison of attitudes between boys in both treatment groups and between girls in both treatment groups. This hypothesis also included the observation of the amounts of independent reading for

these same groups.

Upon completion of the treatment program and collection of the raw data, this investigator felt it might also be beneficial to examine the data according to the sex differential within each treatment group. Short sections of this chapter will center on comparisons of attitudes toward reading and amounts of independent reading within the experimental and control groups.

In each of the four hypotheses, t tests were conducted on the post-test attitude scores and/or the number of independently read book and pages. A discussion of the results of the present investigation and their relation to previous studies follows the analysis of the data.

Comparison of Reading Attitudes Between Treatment Groups

In an analysis of the first hypothesis, the attitude scores for all experimental subjects were compared with the scores of all the control subjects to determine the effects of sustained silent reading on students' attitudes toward reading. Similar mean scores for the experimental and control groups resulted in a difference of 0.13 favoring the experimental group. This difference in the mean scores was not significant at the .05 level of confidence (Table 2). The first hypothesis was not supported by this data of the total sample.

TABLE 2

COMPARISON OF MEAN SCORES ON THE ESTES READING ATTITUDE SCALE FOR BOTH TREATMENT GROUPS (N=81)

	Experimental (N=40)	Control (N=41)
Mean scores	17.18	17.05
Standard deviations	8.10	6.67
Difference	0.13	
t value	0.08	

t (df > 79) = 2.000 p > .05

In addition to the difference in attitude scores between the two treatment groups, this investigator also selected to examine further the differences in scores according to the sex differential within each group. In the experimental group, girls' mean score was 22.30 in comparison to a 12.05 mean score for boys. The difference in means, 10.25, did achieve statistical significance at the .05 level. (Table 3)

Within the control group, girls' mean score was 19.81 in comparison to a 14.15 mean score for boys. The difference in means, 5.66, was less than the difference found within the experimental group. Yet, it also achieved statistical significance at the .05 level. (Table 3)

The data demonstrated that girls had significantly better attitudes than boys within the experimental and control groups, after their involvement in the treatment programs.

Comparison of Independent Reading Between Treatment Groups

Books Completed as Independent Reading

The second and third hypotheses observed a comparison of the amounts of independent reading for both treatment groups. Data were obtained from an examination of the number of completed books and pages reported on students' reading record sheets. The second hypothesis was concerned with effects of sustained silent reading on the

TABLE 3

COMPARISON OF MEAN SCORES ON THE ESTES READING ATTITUDE SCALE ACCORDING TO THE SEX DIFFERENTIAL WITHIN EACH TREATMENT GROUP

	Experimental (N=40)	Control (N=41)
Girls		
N	20	21
Mean scores	22.30	19.81
Standard deviations	5.40	5.52
Boys		
N	20	20
Mean scores	12.05	14.15
Standard deviations	7.10	6.67
Differences (Girl/Boy)	10.25	5.66
t values	5.13*	2.95*

t (df > 38) = 2.042
(df > 39) = 2.042

*p > .05

mean numbers of completed books for both treatment groups. The difference in the mean numbers of books between the experimental group and control group was 2.67 favoring the control group. This difference was not significant at the .05 level of confidence (Table 4). The second hypothesis was not supported by the data of the total sample.

Additional information was obtained through an examination of total numbers of completed books recorded at four intervals during the treatment period. The total numbers of books were plotted on a cumulative graph spanning the ten-week treatment period (Figure 1). Although the difference in means was not significant, subjects in the control group completed more books throughout the ten week period. Both groups' total books leveled during weeks 4-5. However, the graph illustrates that each group experienced its period of greatest reading growth at different points during the treatment program. The control group recorded its largest number of completed books during weeks 6-8. In comparison, the experimental group recorded its largest number of completed books during weeks 9-10, suggesting a relationship between this group's amount of independent reading and the length of participation in the SSR program.

In addition, further differences in the mean numbers of completed books according to the sex differential within

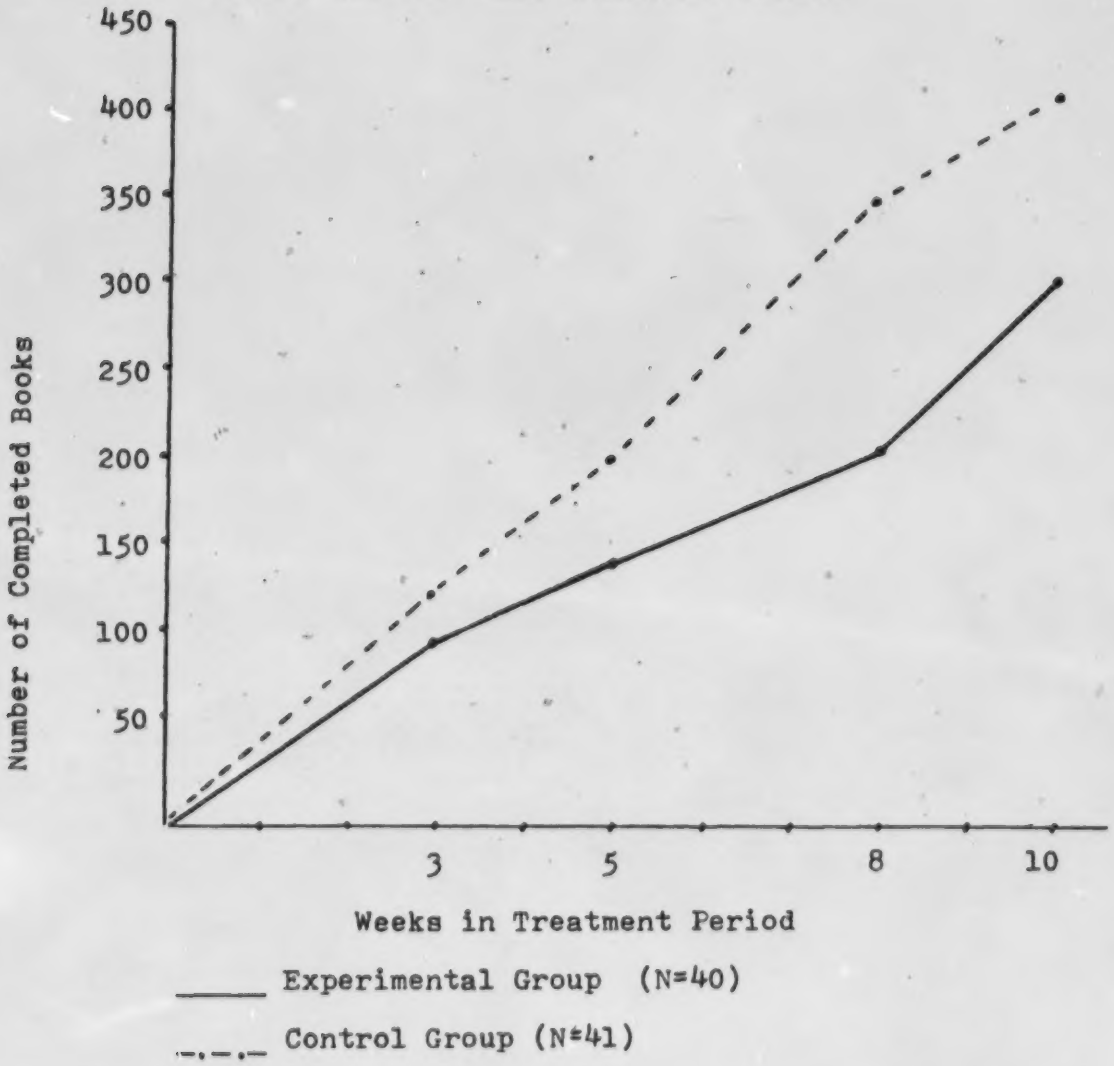
TABLE 4

COMPARISON OF THE MEAN NUMBER OF COMPLETED BOOKS RECORDED AS INDEPENDENT READING FOR BOTH TREATMENT GROUPS (N = 81)

	Experimental (N=40)	Control (N=41)
Mean number of books	7.35	10.02
Standard deviation	8.78	9.18
Difference	2.67	
t value	1.36	
t (df > 79) = 2.000	p > .05	

FIGURE 1

TOTAL NUMBER OF COMPLETED BOOKS RECORDED BY THE EXPERIMENTAL AND CONTROL GROUPS DURING THE TEN WEEK TREATMENT PERIOD



each treatment group were considered. In the experimental group, the difference in the means between boys and girls was 7.80 favoring girls. This difference was significant at the .05 level of confidence. (Table 5). The differene in the means between boys and girls in the control group, 2.20 favoring boys, was not statistically significant at .05 (Table 5).

This data demonstrated that girls in the experimental group completed a significantly greater amount of books than boys during a treatment program of sustained silent reading. Neither boys nor girls in the control group completed a significantly greater amount of books during a treatment program of reading skills practice.

Pages Completed as Independent Reading

The third hypothesis observed the effects of sustained silent reading on the mean numbers of pages recorded as independent reading for both treatment groups. The difference in the mean numbers of pages between the experimental and control groups was 209.72 favoring the control group. This difference was not significant at the .05 level of confidence (Table 6). The data did not support the third hypothesis.

Further information was obtained from an examination of the total number of pages recorded at four intervals during the treatment program. These pages are represented on a cumulative graph spanning the ten-week period (Figure 2).

TABLE 5

COMPARISON OF THE MEAN NUMBER OF COMPLETED BOOKS RECORDED AS INDEPENDENT READING ACCORDING TO THE SEX DIFFERENTIAL WITHIN EACH TREATMENT GROUP

	Experimental (N=40)	Control (N=41)
Girls		
N	20	21
Mean number of books	11.25	8.95
Standard deviations	10.50	6.07
Boys		
N	20	20
Mean number of books	3.45	11.15
Standard deviations	4.02	11.67
Differences (Girl/Boy)	7.80	2.20
t values	3.11*	0.75

t (df > 38) = 2.042 *p > .05
(df > 39) = 2.042

TABLE 6

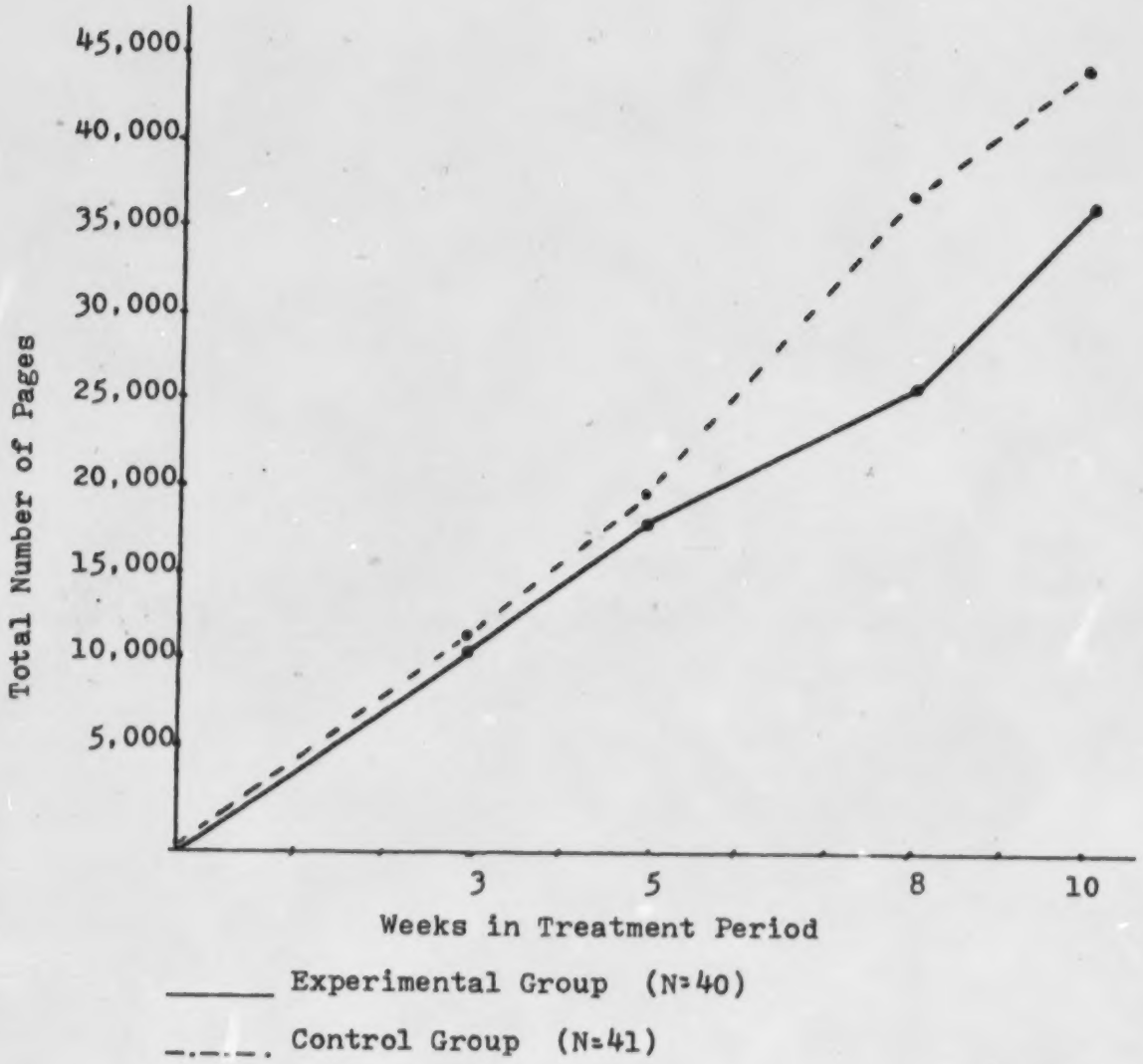
COMPARISON OF THE MEAN NUMBER OF PAGES RECORDED AS INDEPENDENT READING FOR BOTH TREATMENT GROUPS (N=81)

	Experimental (N=40)	Control (N=41)
Mean number of pages	876.38	1086.10
Standard deviation	1079.61	950.99
Difference	209.72	
t value	0.93	

t (df > 79) = 2.000 $p > .05$

FIGURE 2

TOTAL NUMBER OF PAGES RECORDED BY THE EXPERIMENTAL AND CONTROL GROUPS DURING THE TEN WEEK TREATMENT PERIOD



Total pages were similar for both groups during the first five weeks. However, during the remaining five weeks, each group experienced its period of greatest reading growth. During weeks 6-8, the control group recorded its largest number of completed pages. The experimental group displayed its largest increase in number of pages during weeks 9-10. A similar pattern was observed in the experimental group's totals of completed books (Figure 1), suggesting a relationship between this group's amount of independent reading and the length of participation in the SSR program.

Further examination of the treatment groups centered on the differences in the mean numbers of pages according to the sex differential within each group. In the experimental group, the difference in means, 882.75, favoring girls, did achieve statistical significance at the .05 level (Table 7). Within the control group, the difference in means was 318.92, favoring girls. This difference was not significant at the .05 level of confidence (Table 7).

This data for the experimental group demonstrated that girls read a significantly greater number of pages than boys during a treatment program of sustained silent reading. Neither boys nor girls in the control group read a significantly greater number of pages during a treatment program of reading skills practice.

TABLE 7

COMPARISON OF THE MEAN NUMBER OF PAGES RECORDED AS INDEPENDENT READING ACCORDING TO THE SEX DIFFERENTIAL WITHIN EACH TREATMENT GROUP

	Experimental (N=40)	Control (N=41)
Girls		
N	20	21
Mean number of pages	1317.75	1241.67
Standard deviations	1289.96	921.68
Boys		
N	20	20
Mean number of pages	435.00	922.75
Standard deviations	564.18	977.20
Differences (Girl/Boy)	882.75	318.92
t values	2.80*	1.07

t (df > 38) = 2.042
(df > 39) = 2.042

*p > .05

Inter-Group Comparisons of Boys and Girls Reading Attitudes and Independent Reading

In dealing with the fourth hypothesis, comparisons of reading attitude scores and amounts of independent reading were made to determine if differences existed between boys in both treatment groups. Similar comparisons were made to determine if differences existed between girls in both treatment groups. The results of a *t* test shows there was no significant difference in boys' mean attitude scores (Table 8). Likewise, *t* test results show there was no significant difference in girls' mean attitude scores (Table 8). The fourth hypothesis was not supported by the data of these samples.

An examination of independent reading centered on the mean numbers of completed books recorded in these inter-group samples. The difference in the mean numbers of books between girls in the experimental group and girls in the control group was 2.30, favoring the experimental group. This difference was not statistically significant at the .05 level (Table 9).

In contrast, the difference in the mean number of books between experimental group boys and control group boys was 7.70, favoring the control group. This difference was significant at the .05 level of confidence (Table 9). Only this data pertaining to boys in both treatment groups supported the fourth hypothesis.

TABLE 8

COMPARISON OF MEAN SCORES ON THE ESTES READING ATTITUDE SCALE FOR GIRLS IN BOTH TREATMENT GROUPS AND FOR BOYS IN BOTH TREATMENT GROUPS

	Girls (N=41)	Boys (N=40)
Experimental		
N	20	20
Mean Scores	22.30	12.05
Standard deviations	5.40	7.10
Control		
N	21	20
Mean scores	19.81	14.15
Standard deviations	5.52	6.67
Differences (Experimental/Control)	2.49	2.10
t values	1.46	0.96

t (df > 38) = 2.042 (df > 39) = 2.042 $p > .05$

TABLE 9

COMPARISON OF THE MEAN NUMBER OF COMPLETED BOOKS RECORDED AS INDEPENDENT READING FOR GIRLS IN BOTH TREATMENT GROUPS AND FOR BOYS IN BOTH TREATMENT GROUPS

	Girls (N=41)	Boys (N=40)
Experimental		
N	20	20
Mean number of books	11.25	3.45
Standard deviations	10.50	4.02
Control		
N	21	20
Mean number of books	8.95	11.15
Standard deviations	6.07	11.67
Differences (Experimental/Control)	2.30	7.70
t values	0.85	2.79*

t (df > 38) = 2.042
(df > 39) = 2.042

*p > .05

A second examination of independent reading observed the mean number of pages recorded in these inter-group samples. The difference in the mean numbers of pages between experimental group girls and control group girls was 76.08. This difference, favoring the experimental group, was not statistically significant at the .05 level (Table 10). Similarly, the difference in mean pages for boys in both treatment groups, 487.75 in favor of the control group, was not significantly different at the .05 level of confidence (Table 10). The fourth hypothesis was not supported by the data of these samples.

Discussion

Before examining the data, this investigator took several additional measures in an attempt to supply further evidence to support the validity of the instruments used in this study. First, teachers rated subjects who displayed the most and the least enthusiasm and active involvement in both treatment programs. Mean scores for these twenty students, who represented one-quarter of the total sample, yielded the following observations:

1. Teacher ratings appeared similar to subjects' ratings on the attitude scale. The mean score for the high-rated students (24.70) was 7.59 points above the total class mean (17.11). The mean score for the low-rated students (14.70) was 2.41 points below the class mean. This similarity suggests that the attitude scale

TABLE 10

COMPARISON OF THE MEAN NUMBER OF PAGES RECORDED AS INDEPENDENT READING FOR GIRLS IN BOTH TREATMENT GROUPS AND FOR BOYS IN BOTH TREATMENT GROUPS

	Girls (N=41)	Boys (N=40)
Experimental		
N	20	20
Mean number of pages	1317.75	435.00
Standard deviations	1289.96	564.18
Control		
N	21	20
Mean number of pages	1241.67	922.75
Standard deviations	921.68	977.20
Differences (Experimental/Control)	76.08	487.75
t values	0.21	1.93

t (df > 38) = 2.042 (df > 39) = 2.042 p>.05

satisfactorily discriminated between subjects in this study with positive and negative attitudes.

2. There was also a relationship between teacher ratings and the amounts of independent reading recorded by students in this sample. The high-rated students' mean number of completed books was 10.20 above the total class mean (8.70). The low-rated students' mean was 2.00 below the total class mean.

Similarly, the high-rated students' mean number of pages was 854.27 above the total class mean (982.53). The low-rated students' mean was 222.83 below the total class mean. These results suggest that the reading record served as a satisfactory alternate method of discriminating between subjects in this study with positive and negative attitudes.

A second measure attempted to support the validity of the information reported on the reading records. This investigator interviewed the sample of teacher-rated students after the completion of the treatment period. Each student was asked questions about entries on three reading records submitted during the ten week period. Results based on a total of 60 questions indicated that students were able to answer 95% of the investigator's questions. This informal check suggests that subjects in this study actually read the books and pages entered in their reading records.

Based on the final data, there is no significant evidence that daily periods of sustained silent reading encouraged more positive attitudes toward reading or larger amounts of independent reading in the experimental group when compared to the control group receiving reading skills practice. The lack of significant differences between the two treatment groups may be attributed to some of the limitations of this study. An extended SSR period of 30 to 50 minutes and an extended treatment period might have influenced the results. A ten week treatment period does not appear to be sufficient to change attitudes that have been formed over the students' six years of schooling.

In addition, results plotted in Figures 1 and 2 indicate a steady increase in the SSR group's amount of independent reading toward the end of the treatment period. Perhaps a longer treatment period would eventually yield significant results.

When examining the control situation, it should be noted that these students seldom used the commercially prepared reading kits as part of their regular reading class. Involvement with these novel materials could possible account for the control students' enthusiasm and active involvement. The opportunity to experience success with these tasks might be related to the high reading attitude scores of some of the control group students.

These findings are similar to those reported for total populations by Hanson (1972), Harvey (1974), Wilmot (1975), and Reed (1977). However, the total populations noted above spanned several grade levels. When examining results within a specific grade level, the findings of this fifth grade investigation differ from evidence in past research. Wilmot's (1975) study revealed that SSR students in grade four and in grade six had significantly better attitudes toward reading. Hanson (1972) found that experimental (SSR) group students in grade two and in grade four made significantly greater gains in independent reading, based on mean number of pages. However, it is important to note that Hanson included the experimental group's books and pages read during the SSR period when determining his total amount of independent reading. In the present investigation, all materials read entirely during reading class (including the SSR period) were eliminated before determining the total figures reflecting independent reading. This procedural difference may account for results that conflict with previous research.

Significant scores were obtained in this investigation when examining intra-group differences according to the sex differential. Girls' attitudes toward reading were significantly better than boys' attitudes within each treatment group. Girls in the SSR group read a

significantly greater amount of books and pages in comparison to the boys' amounts of independent reading. In some part, these significant findings may be due to the contrasts in boys' and girls' childhood experiences as Askov and Fischbach (1973) mention in a study with similar findings. In other related investigations, Sauls (1973) found that girls had significantly better attitudes toward recreational reading; girls also read a significantly greater number of books. Hansen's (1969) home literary study reported similar results.

A significant finding was also noted in this investigation when examining the inter-group differences of boys and of girls. Boys in the skills practice group completed a significantly greater number of books in comparison to boys in the SSR group. Although the difference in mean number of pages was not significant for these groups, the mean number of pages read by the skills practice boys was more than twice the number of mean pages recorded by the SSR boys.

Peer pressures for boys in this age group may be partly responsible for these results. In a group activity, such as the SSR period, a subject may limit himself to reading materials being read by other classmates and may not be inclined to continue his reading outside of the SSR period. The requirement of filling out reading records

is a school-oriented activity that probably would not gain the positive social reinforcement of peers. It is likely, under these circumstances, that some of the SSR boys in this study did not list all reading completed over the ten week treatment period.

The difference in inter-group mean attitude scores for boys and for girls were not significant. Likewise, there was no significant difference in the amounts of independent reading recorded by girls in the SSR group and girls in the skills practice group. These results are in agreement with the findings comparing the entire SSR group and the skills practice group within this investigation.

CHAPTER V

SUMMARY AND CONCLUSIONS

This study was designed to investigate the effects of a daily period of sustained silent reading upon student attitude toward reading and amount of independent reading. The total fifth grade population of 81 students from a surburban parochial school participated in the study. Students were randomly assigned to groups that met for the final fifteen minutes of the daily hour reading class. The experimental group, under the direction of one teacher, participated in a daily period of sustained silent reading, using library and student-owned reading materials. The control group, under the direction of two teachers, participated in daily reading skill practice activities, using commercially prepared kits.

At the completion of the treatment period, both groups were tested with the Estes Reading Attitude Scale: Elementary Form. In addition, amounts of independent reading were compiled, based on the numbers of completed books and pages entered in student reading records. These records were filled in each day during the ten week period. The results of the treatment were examined with

comparisons of group means of the attitude survey. Comparisons of group means of books and pages recorded as independent reading were also observed. The investigator further attempted to verify the validity of the findings from the two self-report instruments employed in the study. Results from teacher ratings and student interviews suggested that the attitude scale and reading record satisfactorily discriminated between subjects in this study with positive and negative reading attitudes.

The analysis of the first hypothesis, examining the effect of sustained silent reading on students' reading attitudes, indicated there was no significant difference between the mean attitude scores for subjects participating in daily sustained silent reading and subjects participating in daily skills practice activities. Limitations in the length of the treatment period and the daily time allotment for SSR may, in part, be responsible for this outcome. Also, the control subjects' enthusiasm for the skills practice materials may have influenced students' scores on the attitude test.

An analysis of the second hypothesis, examining the effect of SSR on students' independent reading, indicated that there was no significant difference in the mean numbers of completed books recorded as independent reading for subjects participating in SSR and subjects involved in skills practice activities. Similarly, an analysis of the

third hypothesis resulted in no significant difference in the mean numbers of pages completed by these same groups. Again, the time limitations involved in this study may have influenced these findings. A closer examination of the total amount of reading completed at intervals over the ten week program suggests a steady gain for the SSR group toward the end of the treatment period. Perhaps a longer period of participation in SSR would significantly increase the subjects' amounts of independent reading.

An analysis of the fourth hypothesis, contrasting inter-group differences in attitude and independent reading for boys and girls, illustrated that no significant difference in attitude existed between boys with daily SSR practice and boys with daily reading skills practice. The same findings were obtained for girls in these two groups.

An analysis of the fourth hypothesis also indicated that there was no significant difference in the mean number of pages completed as independent reading in these same groups. Also, there was no significant difference in the mean number of completed books recorded by girls in both groups.

In contrast, there was a significant difference in the mean number of books recorded as independent reading for boys in the skills practice group and boys in the SSR group. Peers may have influenced boys who had to perform

within a group reading situation such as SSR. The scope of their reading selections and their carry-over of reading into spare time might have been limited by the preferences of other classmates.

An informal observation of reading records for boys in the SSR group indicated that boys selected similar materials, usually limited to magazine articles, for their SSR reading. Books were seldom listed as part of their reading outside the SSR class. In comparison, boys in the control group, who were not required to read their self-selected materials in the presence of peers, listed a wider variety of materials in their reading records. More books were logged as sources of reading materials outside the reading class. Choice of materials could possibly account for the significant finding.

Although only limited research examining the effects of SSR is available, the findings of this investigation are in agreement with those of past studies. The absence of significant differences in attitudes, based on comparisons of the total population, is also reported by Hanson (1972), Harvey (1974), Wilmot (1975), and Reed (1977). Unlike Hanson's (1972) study examining SSR and independent reading, the present investigation found no significant differences in amounts of independent reading between groups. Hanson found significant independent reading gains in grades two and four when he included SSR reading as part of his

total book count. The present investigation deducted SSR reading in order to eliminate an unfair advantage in reading time favoring the experimental group. This procedural variation possibly accounted for results that conflict with Hanson's previous findings.

Based on the overall comparisons between the total treatment groups, it could be inferred that there is no difference in the effects of daily SSR practice or daily reading skills practice upon students' reading attitudes and amounts of independent reading. Longer periods of participation could possibly have a more positive influence on the gradual process of attitude formation.

Suggestions for Further Research

Future investigations of the effects of sustained silent reading on students' attitudes toward reading and their independent reading habits could yield more conclusive evidence if studies could be conducted over longer periods of time. Significant results might be obtained in programs where students participate in SSR practice for an entire school year.

A further step could involve a longitudinal study of the effects of sustained silent reading practice. Beginning at the primary level, this longer time allotment would complement the longer periods of time required for attitude formation.

The daily fifteen minute period of sustained silent reading within this investigation could be extended in future studies. It might also be beneficial to examine the effects of varied SSR time periods ranging from 10 to 60 minutes.

A study of the types of reading materials selected by intermediate grade students would complement a future SSR study. Greater amounts of independent reading may be encouraged by the student's more frequent selection of either books, magazines, comics or newspapers.

Finally, further study could examine other teaching techniques and factors in the school environment that may encourage positive student attitudes. Areas of investigation could include the effect of the SSR teacher as a reading model, the variety of materials in the reading environment, and the inclusion of SSR in programs that encourage reading in the home environment. These factors could be coupled with sustained silent reading practice in an attempt to obtain significant changes in students' reading attitudes and behavior.

BIBLIOGRAPHY

Alexander, J. E., & Filler, R. C. Measures of reading attitudes. Elementary English, May 1975, 52, 376-378.

Alexander, J. E. , & Filler, R. C. Attitudes and reading. Newark, Del.: International Reading Association, 1976.

Allington, R. L. Sustained approaches to reading and writing. Language Arts, September, 1975, 52, 813-815.

Askov, E. N., & Fischbach, T. J. An investigation of primary pupils' attitudes toward reading. Journal of Experimental Education, Spring 1973, 41, 1-7.

Bissett, D. J. The amount and effect of recreational reading in selected fifth grade classes. (Doctoral dissertation, Syracuse University, 1969). Dissertation Abstracts International, 1970, 30, 5157A.

Botel, M. A comprehensive reading communication arts plan. Harrisburg, Penna.: Pennsylvania Department of Education, 1977.

Bowen, B. E. The teacher's role in teaching literature in the elementary school. (Doctoral dissertation, University of Michigan, 1964). Dissertation Abstracts, 1965, 25, 7105.

Bullen, G. F. A study in motivating children to read. Minneapolis, Minn.: American Educational Research Association, 1970. (ERIC Document Reproduction Service No. ED 040 018).

Chambers, D. W. ...let them read. The Reading Teacher, December 1966, 20, 254-257.

Coughlin, A. G. SSR: The strand that untangles the skein. Curriculum Review, December 1977, 16, 352-353.

Donelson, K. L. Free reading: another view. Journal of Reading, April 1969, 12, 545-549.

Duffy, G. G. Developing the reading habit. The Reading Teacher, December 1967, 21, 253-256.

Dulin, K. L., & Chester, R. D. A validation study of the Estes Attitude Scale. Journal of Reading, October, 1974, 17, 56-59.

Estes, T. H. A scale to measure attitudes toward reading. Journal of Reading, November 1971, 15, 135-139.

Estes, T. H. Assessing attitudes toward reading. Detroit, Mich.: International Reading Association, 1972. (ERIC Document Reproduction Service No. 063 077)

Estes, T. H. Attitude toward reading: alternatives in assessment. Bethlehem, Penna.: Lehigh University 1975. (ERIC Document Reproduction Service No. ED 105 415)

Estes. T. H., Roettger, D. M., Johnstone, J. P., & Richards, H. C. Estes attitude scales: elementary form manual for administration and interpretation. Charlottesville, Va.: Virginia Research Associates, 1976.

Evans, H. M., & Towner, J. C. Sustained silent reading: does it increase skills? The Reading Teacher, November 1975, 29, 155-156.

Gage, T. The reader as performer. Las Vegas, Nev.: National Council of Teachers of English, 1971. (ERIC Document Reproduction Service No. ED 073 414)

Ganz, P., & Theofield, M. B. Suggestions for starting SSR sustained silent reading. Journal of Reading, May 1974, 17, 614-616.

Gooch, B. N., & Westermark, T. I. What is a real reader? Journal of Reading, October 1970, 14, 26-28.

Greene, J. F., & Zirkel, P. A. A review of instrumentation to assess reading attitudes in the elementary grades. San Francisco, Calif.: American Educational Research Association, 1976. (ERIC Document Reproduction Service No. ED 131 088)

Hansen, H. S. The impact of the home literary environment on reading attitude. Elementary English, January 1969, 46, 17-24.

Hansen, H. S. The home literary environment: a follow-up report. Elementary English, January 1973, 50, 97-98.

Hanson, R. A. A study of the effects of sustained silent reading on the reading attitudes and habits of second, third, and fourth grade students in a low income area school. (Doctoral dissertation, University of North Dakota, 1972) Dissertation Abstracts International, 1973, 33, 5034A.

Harvey, L. M. The effects of uninterrupted sustained silent reading inservice training on teachers and their students. (Doctoral dissertation, Auburn University, 1974). Dissertation Abstracts International, 1975, 35, 7635A.

Healy, A. K. Changing children's attitudes toward reading. Elementary English, March 1963, 40, 255-257.

Healy, A. K. Effects of changing children's attitudes toward reading. Elementary English, March 1965, 42, 269-272.

Heathington, B. S., & Alexander, J. E. A child based observation checklist to assess attitude toward reading. The Reading Teacher, April 1978, 31, 769-771.

Huck, C. S. Children's literature in the elementary school (3rd ed.). New York: Holt, Rinehart & Winston, 1976.

Hunt, L. C., Jr. Six steps to the individualized reading program (IRP). Elementary English, January 1971, 48, 27-32.

Kemper, R. E. An investigation of seventh grade students' attitudes toward reading as measured by the semantic differential. (Doctoral dissertation, University of Pittsburgh, 1970). Dissertation Abstracts International, 1970, 31, 2256A.

Lamme, L. L. Are reading habits and abilities related? The Reading Teacher, October 1976, 30, 21-27.

Lawson, H. D. Effects of free reading on the reading achievement of sixth grade pupils. (Doctoral dissertation, George Peabody College for Teachers, 1964). Dissertation Abstracts, 1965, 25, 6340-6341.

McCracken, R. A. Do we want real readers? Journal of Reading, March 1969, 12, 446-448.

McCracken. R. A. Initiating sustained silent reading. Journal of Reading, May 1971, 14, 519-521.

McCracken, R. A., & McCracken, M. J. Reading is only the tiger's tail. San Rafael, Calif.: Leswing Communications, 1972.

McCracken, R. A., & McCracken. M. J. Modeling is the key to sustained silent reading. Journal of Reading, January 1978, 31, 406-408.

Mork, T. A. Sustained silent reading in the classroom. The Reading Teacher, February 1972, 25, 438-441.

Noland, R. G. Sustained silent reading (SSR) as in let them read. Reading Horizons, Spring 1976, 6, 157-159.

Oliver, M. E. High intensity practice: the right to enjoy reading. Education, September/October 1970, 91, 69-72.

Oliver, M. E. Effect of high intensity practice on reading comprehension. Reading Improvement, Fall 1973, 10, 16-18.

Petre, R. M. Reading breaks make it in Maryland. Journal of Reading, December 1971, 15, 191-194.

Pfau, D. W. An investigation of the effects of planned recreational reading programs in first and second grade. (Doctoral dissertation, State University of New York at Buffalo, 1966). Dissertation Abstracts, 1966, 27, 1719A.

Pfau, D. W. Effects of planned recreational reading programs. The Reading Teacher, October 1967, 21, 34-39.

Postel, H. H. Reading the entire book: an experiment in sustained reading. Elementary School Journal, April 1958, 58, 389-390.

Ransbury, M. K. Assessment of reading attitudes. Journal of Reading, October 1973, 17, 25-28.

Reed, K. An investigation of the effect of sustained silent reading on reading comprehension skills and attitude toward reading of urban secondary school students. (Doctoral dissertation, University of Connecticut, 1977). Dissertation Abstracts International, 1977, 38, 4718A.

Roettger, D. M. Reading is fun! An analysis of students' responses on the Estes Reading Attitude Scale. Ankeny, Iowa: Heartland Education Agency, 1977. (ERIC Document Reproduction Service No. ED 144 009)

Rowell, C. G. An attitude scale for reading. The Reading Teacher, February 1972, 25, 442-447.

Sauls, C. Relationship of selected factors to recreational reading of sixth graders. Elementary English, October 1974, 51, 1009-1011.

Spache, G. D. Good reading for poor readers (10th ed.). Champaign, Ill.: Garrard, 1978.

Spinrad, D. How all the children began to read: USSR. Language Arts, May 1976, 53, 572-573.

Stanley, J. C. and Campbell, D. T. Experimental and quasi-experimental designs for research on teaching. In N. L. Gage (Ed.) Handbook for research on teaching. Chicago: Rand-McNally, 1963.

Summers, E. G. Instruments for assessing reading attitudes: a review of research and a bibliography. Journal of Reading Behavior, Summer 1977, 9, 137-167.

Towner, J. C., & Evans, H. M. The S.S. Reading: does it float? Reading Horizons, Winter 1975, 5, 83-86.

Washburn, J. S. Motivating lifetime readers of literature. New York: National Council of Teachers of English, 1977. (ERIC Document Reproduction Service No. ED 151 804).

Williams, R. P. A study to determine the effects of time allotment of supervised practice in the reading process. (Doctoral dissertation, Arizona State University, 1967). Dissertation Abstracts, 1967, 28, 2607A.

Wilmot, M. P. An investigation of the effect upon the reading performance and attitude toward reading of elementary grade students, of including in the reading program a period of sustained silent reading. , (Doctoral dissertation, University of Colorado, 1975). Dissertation Abstracts International, 1976, 36, 5029.

Yatvin, J. Recreational reading for the whole school. The Reading Teacher, November 1977, 31, 185-188.

Zirkel, P. A., & Greene, J. F. Measurement of attitudes toward reading in the elementary grades: a review. Reading World, December 1976, 16, 104-114.

APPENDIX A

ESTES READING ATTITUDE SCALE: ELEMENTARY FORM

NAME _____ DATE _____

If you agree, mark A

If you don't know, mark ?

If you disagree, mark D

	A	?	D
1. Reading is fun for me.	☐	☐	☐
2. Books are boring.	☐	☐	☐
3. Reading is a good way to spend spare time.	☐	☐	☐
4. Reading turns me on.	☐	☐	☐
5. Books do not make good presents.	☐	☐	☐
6. Reading is rewarding to me.	☐	☐	☐
7. Reading becomes boring after about a half hour.	☐	☐	☐
8. Free reading teaches me something.	☐	☐	☐
9. There should be time for free reading during the school day.	☐	☐	☐
10. There are many books I hope to read.	☐	☐	☐
11. Reading is something I can do without.	☐	☐	☐
12. A certain amount of time during summer should be set aside for reading.	☐	☐	☐
13. Books usually are good enough to finish.	☐	☐	☐
14. Reading is not exciting.	☐	☐	☐

APPENDIX B

STUDENT READING RECORD

NAME _____ WEEK _____

FREE CHOICE READING

Title or Description of Reading	Number of Pages	I read the whole book		I read this:	
		Yes	No	Only in reading class	at other time of day

APPENDIX C

SUMMARY OF RESULTS OF PILOT TESTING

APPENDIX C

RESULTS OF PILOT TESTING OF SIXTH GRADE STUDENTS USING THE ESTES READING ATTITUDE SCALE: ELEMENTARY FORM

	Total (N=10)	Girls (N=5)	Boys (N=5)
Range	0-28	9-23	0-28
Mean scores	18.60	18.80	18.40
Standard deviations	8.17	5.59	10.90